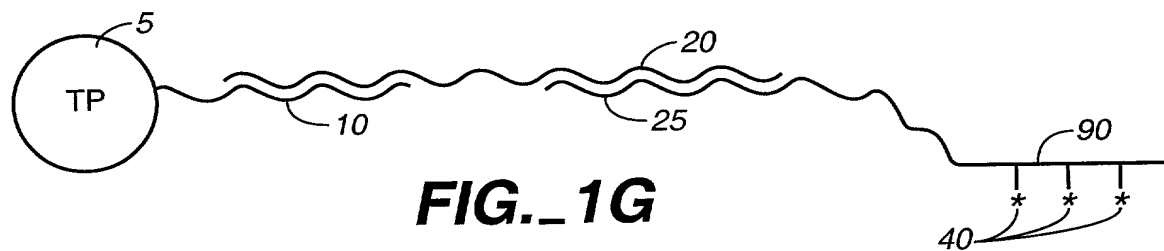
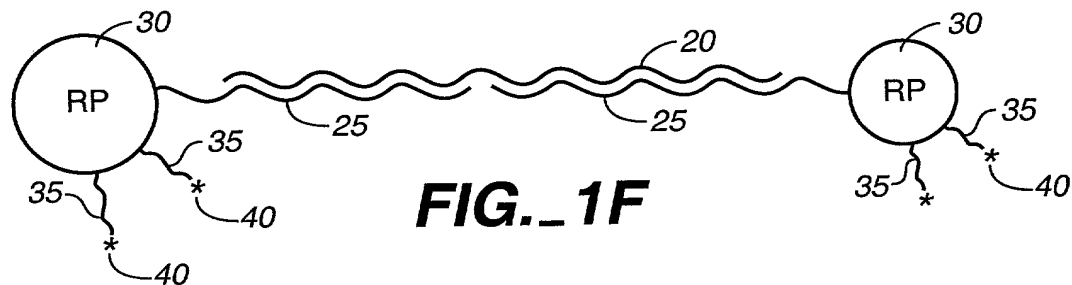
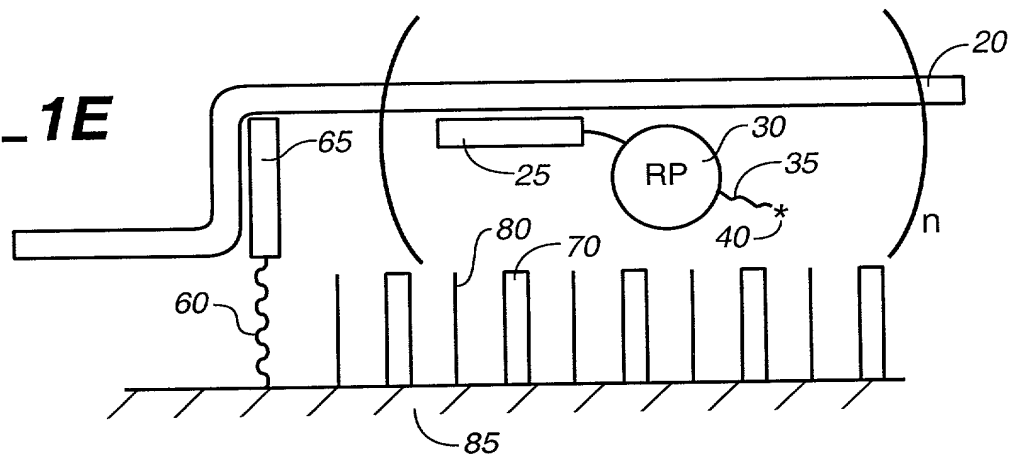
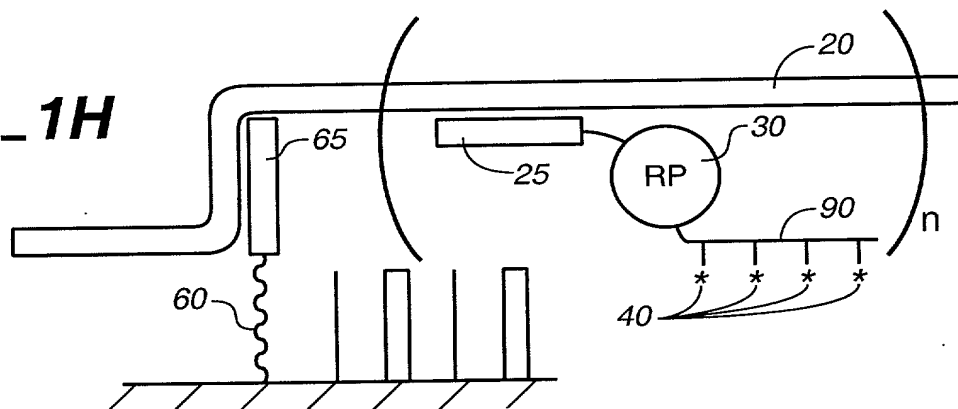
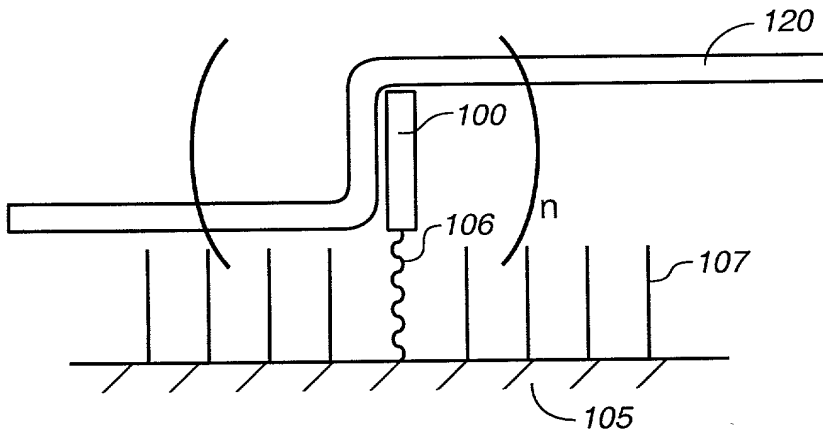
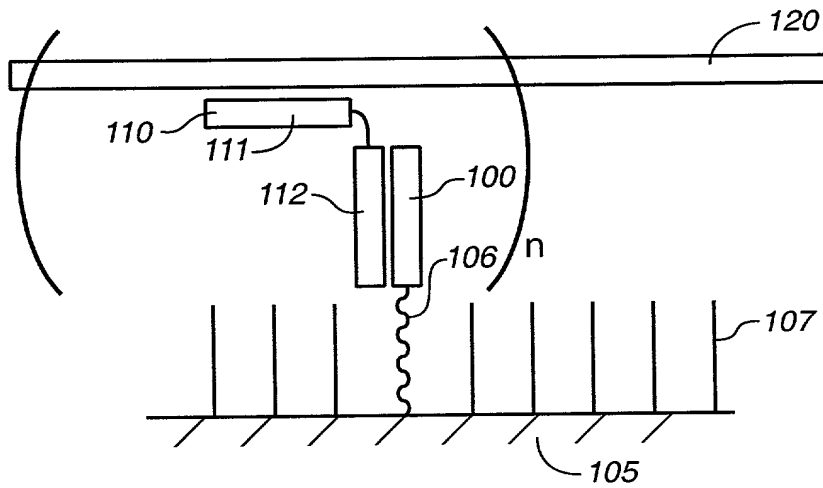
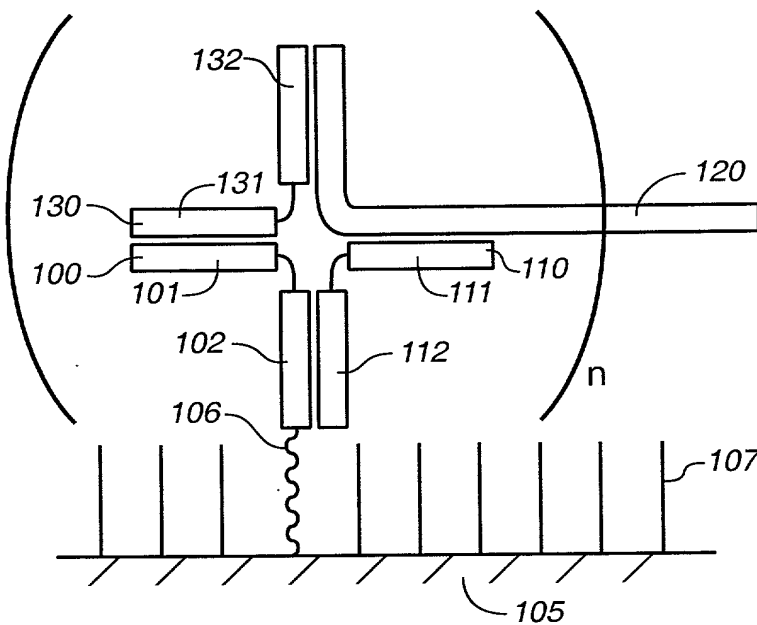




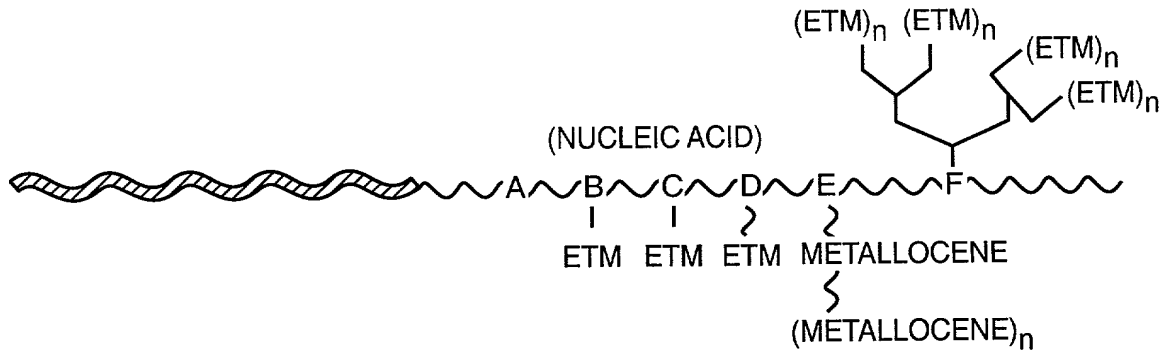
**FIG.\_1E****FIG.\_1H**

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**FIG.\_2A****FIG.\_2B****FIG.\_2C**

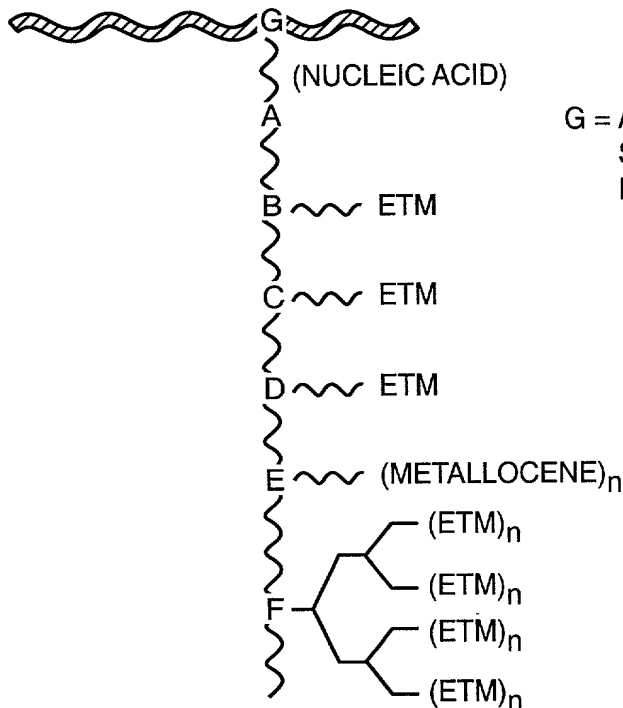
FOOTER: 31491001

 = FIRST HYBRIDIZABLE PORTION OF LABEL PROBE  
 = RECRUITMENT LINKER



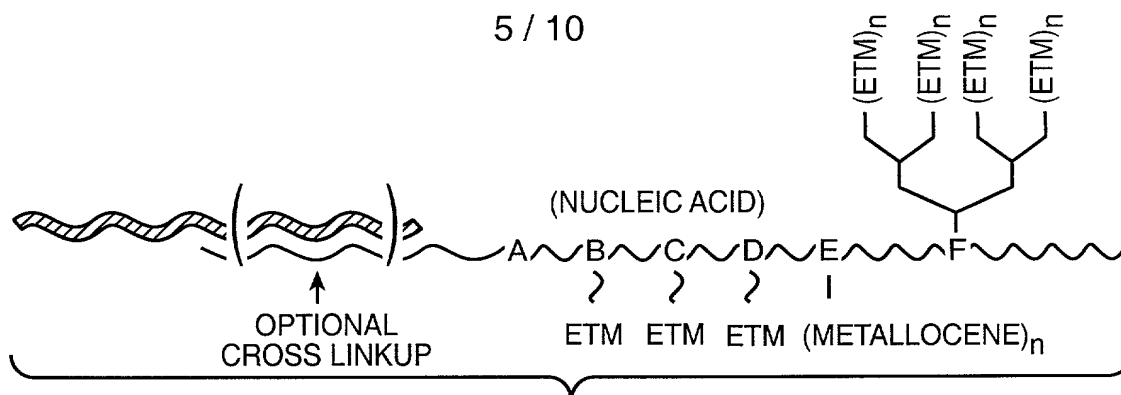
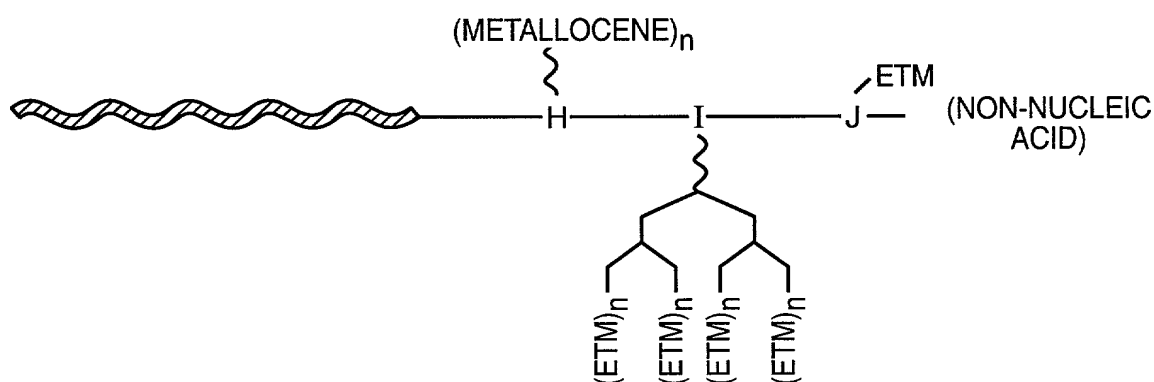
A = NUCLEOSIDE REPLACEMENT  
 B = ATTACHMENT TO A BASE  
 C = ATTACHMENT TO A RIBOSE  
 D = ATTACHMENT TO A PHOSPHATE

E = METALLOCENE POLYMER, ATTACHED  
 TO A RIBOSE, PHOSPHATE, OR BASE  
 F = DENDRIMER STRUCTURE, ATTACHED  
 VIA A RIBOSE, PHOSPHATE OR BASE

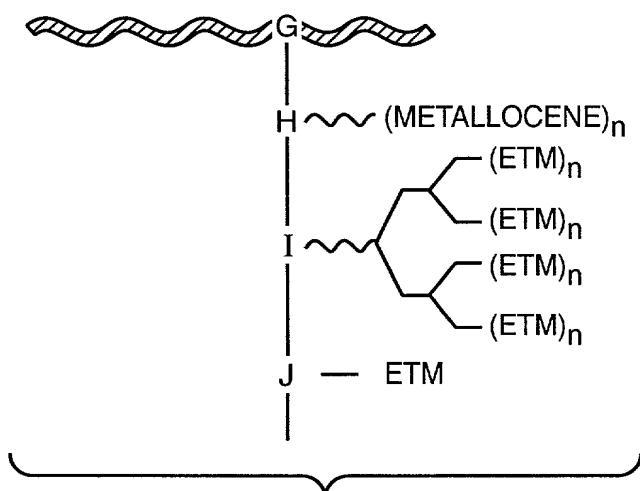
**FIG. 3A**

G = ATTACHMENT VIA A "BRANCHING STRUCTURE", THROUGH RIBOSE, PHOSPHATE OR BASE

**FIG. 3B**

**FIG.\_3C**

H = ATTACHMENT OF METALLOCENE POLYMERS  
 I = ATTACHMENT VIA DENDRIMER STRUCTURE  
 J = ATTACHMENT USING STANDARD LINKERS

**FIG.\_3D****FIG.\_3E**

**FIG. 4**

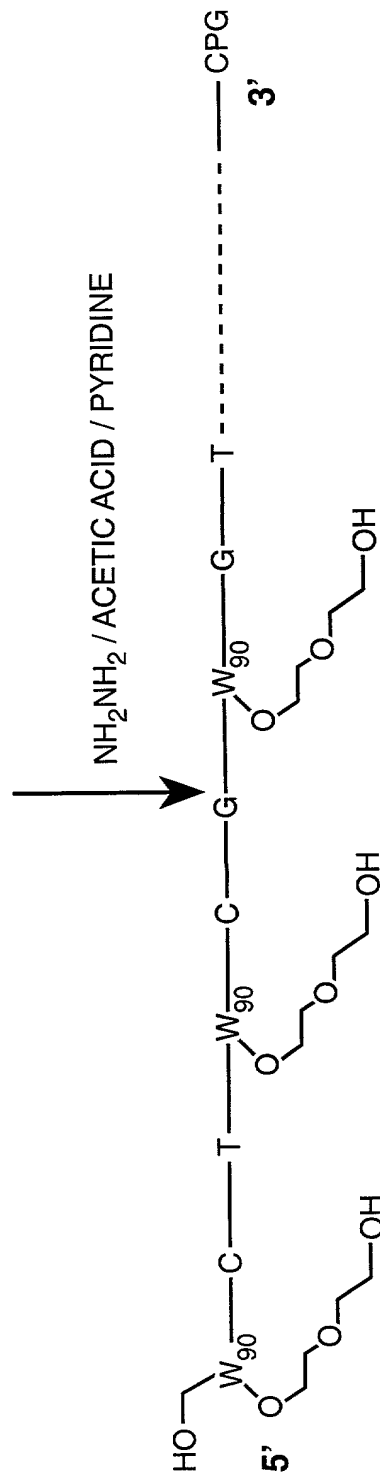
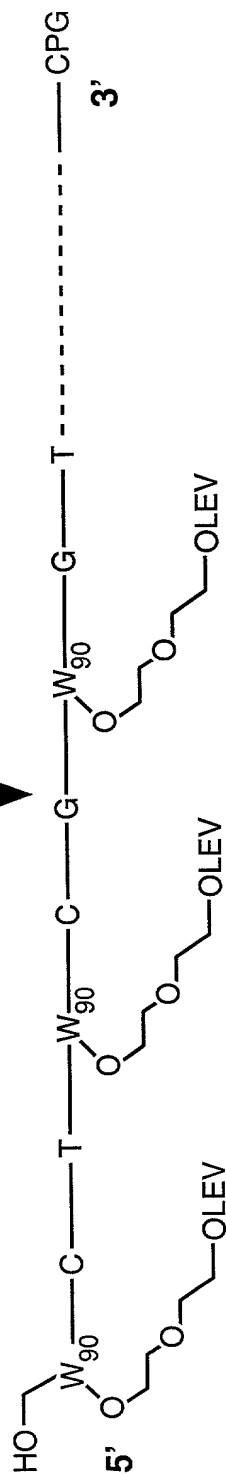
FIG. 4A

FIG. 4B

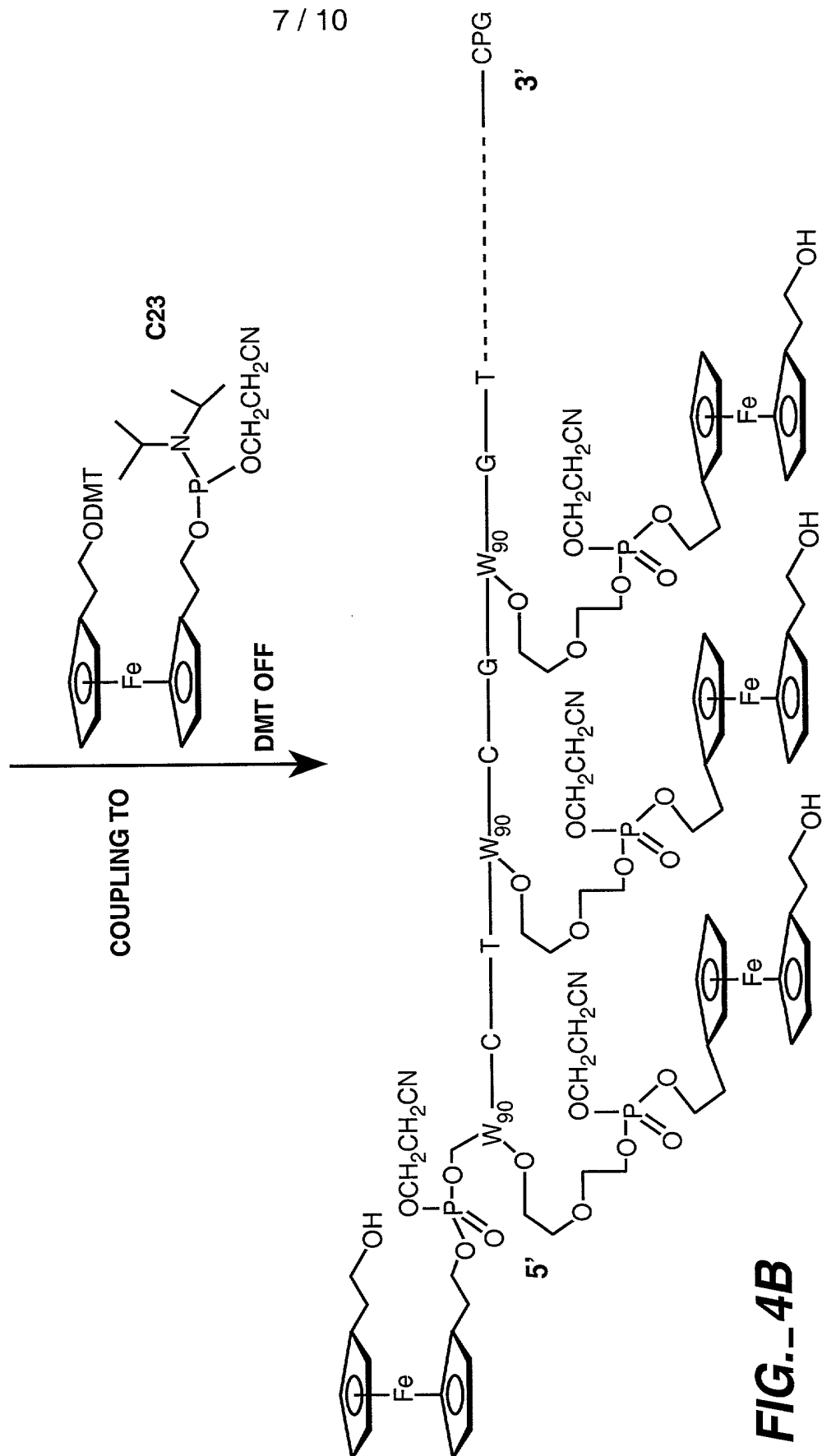
FIG. 4C

**FIG. 4A**

STANDARD DNA SYNTHESIS USING W90

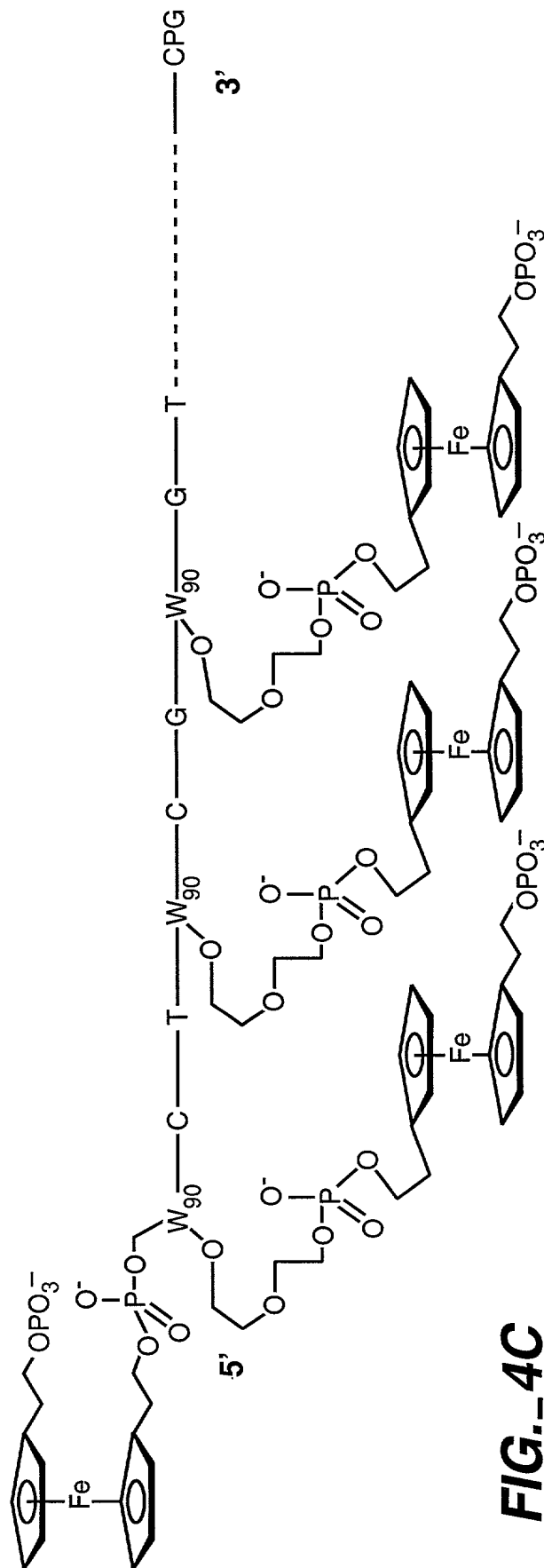


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THIS PROCESS CAN BE REPEATED UNTIL THE DESIRED # OF FERROCENE IS OBTAINED, AND THEN HYDROXY GROUPS ON FERROCENE ARE CAPPED USING THE LEFT PHOSPHORAMIDITE IN ORDER TO INCREASE THE SOLUBILITY OF FERROCENE IN WATER.



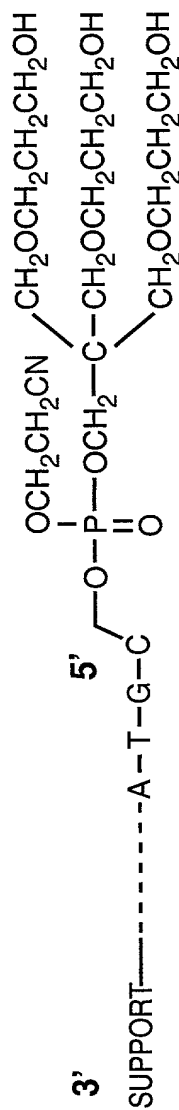
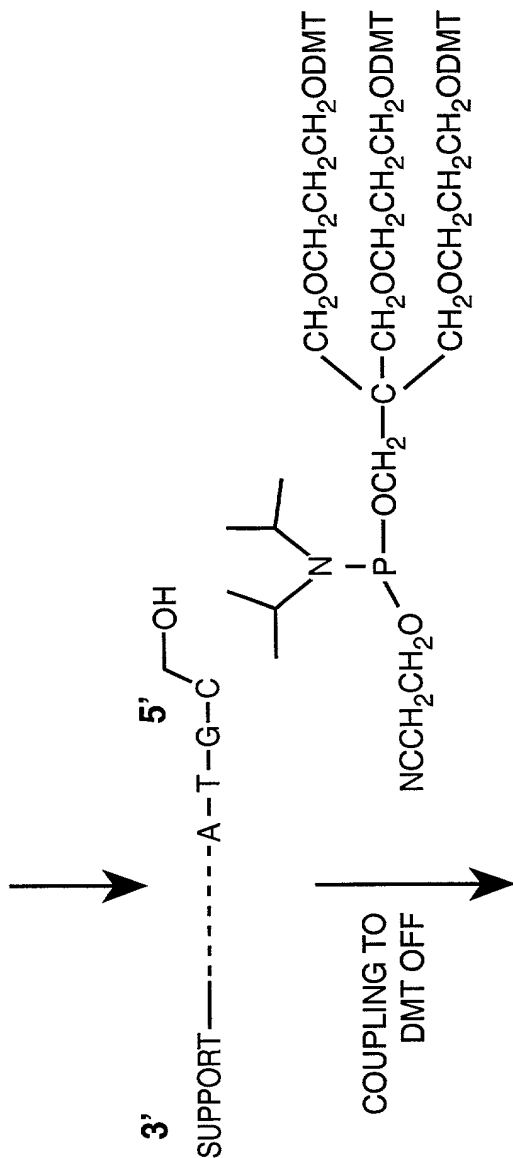
**FIG. 4C**



FIG. 5A

FIG. 5B

STANDARD DNA SYNTHESIS



THIS COUPLING PROCESS CAN BE REPEATED UNTIL DESIRED # OF THE BRANCHING POINTS

